

**TRANSMITTAL LETTER FOR A PCT INTERNATIONAL APPLICATION**  
**ENTERING THE NATIONAL STAGE IN THE U.S. AS A DESIGNATED or**  
**ELECTED OFFICE UNDER 35 USC 371**

Attorney's Docket No.: KKFIP008

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Box PCT Application  
• Attention: DO/EO  
Washington, D.C. 20231

Transmitted herewith are the papers required to enter the national state in the U.S. as a designated office/elected office for the following PCT international patent application:

**INTERNATIONAL APPLICATION NUMBER: PCT/EP99/03870**

**Int'l Filing Date: 04 June 1999**

**1st Priority Date: 05 June 1998**

**Inventor(s): SCHNEIDER, Maximilian**

**For: METHOD FOR PRODUCING CARDBOARD MATCHES AND  
CORRESPONDING CARDBOARD MATCHES, ESPECIALLY FOR BOOKS OF  
MATCHES**

The United States Patent Office is: (select one)

- ☐ A Designated Office (No Demand was filed - See 37 CFR 1.494)  
☒ An Elected Office (A Demand for Preliminary Examination was Filed - See 37 CFR 1.495)

Enclosed are:

- ☒ A copy of the face page only of the international application (if this line is not checked, the international application was previously communicated by the International Bureau or the international application was originally filed in the USPTO).  
☒ An English Translation of the International Application - including 01 sheet of drawings  
☐ A Combined Declaration and Power of Attorney  
☐ A copy of amendments made under PCT Article 19  
☐ A translation of amendments made under PCT Article 19  
☐ A copy of amendment made under PCT Article 34  
☒ A translation of amendments made under PCT Article 34  
☐ A translation of annexes to the international preliminary examination report  
☐ Verified Statement establishing Small Entity Status under 37 CFR 1.9 and 1.27.  
☐ An Assignment of the Invention to:  
(with \$40.00 recordal fee)  
☐ Information Disclosure Statement  
☒ A Preliminary Amendment  
☒ A copy of the International Search Report

A copy of the Preliminary Examination Report  
X A check to cover the filing fees (including the basic national fee under 37 CFR 1.492(a)) in the amount calculated below:

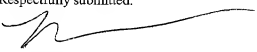
## FEE CALCULATION

<u>X</u>	BASIC FEE- APPLICANT CLAIMS SMALL ENTITY STATUS		\$430.00
	(IPEA-U.S. \$670/335; ISA-U.S. \$760/380; PTO not ISA or IPEA \$970/485;		
	U.S. IPEA all claims meet 33(2)-(4) \$96/48; File w/ EPO or JPO search report \$860/430;)		
<u>    </u>	Surcharge for filing a late oath or declaration (\$130/65)	\$	
<u>    </u>	Surcharge for filing a late translation (\$130)	\$	
<u>    </u>	Multiple dependent claims (\$260/130)	\$	
<u>    </u>	Excess claims - see calculation below	\$	
	Total Claims: 22 - 20 = 2	X \$18/09 claim =	\$18.00
	Independent Claims: 2 - 3 = 0	X \$78/39 ind. claim =	
	Excess Claim Total	\$18.00	
<u>    </u>	Assignment recordal fee (\$40)	\$ -0-	
		TOTAL FEES	\$448.00

X The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-0384. A duplicate copy of this transmittal is enclosed.

Please direct all correspondence concerning this case to the undersigned at HICKMAN COLEMAN & HUGHES, LLP, P.O. Box 52037, Palo Alto, CA 94303-0746.

Respectfully submitted.

  
Paul L. Hickman  
Registration No. 28,516

Hickman Coleman & Hughes, LLP  
P.O. BOX 52037  
Palo Alto, CA 94303-0746  
(650) 470-7430

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: M. SCHNEIDER	)	
	)	Examiner:
Application No.: [U.S. National Stage of PCT/EP99/03870]	)	
	)	Group Art Unit:
Filed: December 5, 2000 [Herewith]	)	
	)	Date: December 5, 2000
Title: METHOD FOR PRODUCING CARDBOARD	)	
MATCHES AND CORRESPONDING	)	
CARDBOARD MATCHES, ESPECIALLY FOR	)	
BOOKS OF MATCHES	)	

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Preliminarily, kindly amend the application as follows.

In the Claims

Please amend claims as follows.

3. (Amended) A method for producing cardboard matches as claimed in claim 1 [or 2], characterized in that the piece of cardboard (1) is provided with an oblong shape, with the longitudinal extension of the piece of cardboard (1) being produced in particular nearly twice as long as its transversal direction.

5. (Amended) A method for producing cardboard matches as claimed in [one of the preceding claims] claim 1, characterized in that a first section extending from the first transversal side (3) of the piece of cardboard (1) is bent or folded, so that the first transversal side (3) comes to lie preferably behind the second transversal side (3) or adjacent to the same.

7. (Amended) A method for producing cardboard matches as claimed in [one of the preceding claims] claim 1, characterized in that a specially line-shaped weakening zone (6) is

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integrated in the piece of cardboard (1) approximately centrally between the transversal sides (3) and parallel to the same.

9. (Amended) A method for producing cardboard matches as claimed in [one of the preceding claims] claim 1, characterized in that the zones of the end sections (7) of the two transversal sides (3) arranged in one plane are provided with paraffin and/or igniting mass.

11. (Amended) A method for producing cardboard matches as claimed in [one of the claims 1 to 8] claim 1, characterized in that the piece of cardboard (1) is folded about an angle of preferably more than 90° and less than 180° and the zones of the end sections (7) of the two transversal sides are provided thereafter simultaneously with paraffin and/or igniting mass (9).

12. (Amended) A method for producing cardboard matches as claimed in [one of the preceding claims] claim 1, characterized in that cuts (4) and/or cutouts (11) between the individual strips (5) are arranged such that the individual strips (5) are differently wide and/or differently shaped.

16. (Amended) Cardboard matches as claimed in [one of the claims 13 to 15] claim 13, characterized in that a first section starting out from the first transversal side (3) of the piece of cardboard (1) is bent or folded in such a way that the first transversal side (3) preferably comes to lie behind the second transversal side (3) or adjacent to the same.

18. (Amended) Cardboard matches as claimed in [one of the claims 13 to 17] claim 13, characterized in that an especially line-shaped weakening zone, preferably a perforation (6), is arranged in the piece of cardboard (1) approximately centrally between the transversal sides (3) and parallel to the same.

19. (Amended) Cardboard matches as claimed in [one of the claims 13 to 18] claim 13, characterized in that the cuts (4) and/or the cutouts (11) are arranged between individual strips (5) in such a way that the individual strips (5) are shaped with different widths and/or different shapes.

20. (Amended) Cardboard matches as claimed in [one of the claims 13 to 19] claim 13, characterized in that the shape of the strips (5) and a printed motif (15) are matched to one another.

21. (Amended) Cardboard matches as claimed in [one of the claims 13 to 20] claim 13, characterized in that the igniting mass (9) is colored.

22. (Amended) A book of matches with at least one cardboard match as claimed in [one of the claims 13 to 21] claim 13.

#### REMARKS

Claims 1 - 22 were in the application following amendments made Under Art. 34 of the Patent Cooperation Treaty in the course of International Preliminary Examination under Chapter II of the PCT (Claims: (amended) Sheets 1 - 3). By Preliminary Amendment herein, claims 3, 5, 7, 9, 12, 16 and 18 - 22 are amended herein to remove multiple dependencies. No new matter is introduced by any of the amendments, and entry thereof is requested. Claims 1 - 22 are now in the application. Examination of the Application, as amended, is requested.

If the Examiner determines that a conference would facilitate prosecution of this application, the Examiner is invited to telephone Applicants' representative, undersigned, at the telephone number set out below.

Respectfully submitted,



Paul L. Hickman  
Reg. No. 28,516

P.O. Box 52037  
Palo Alto, CA 94303-0746  
Telephone: (650) 470-7430

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Description:

A method for producing cardboard matches and corresponding cardboard matches, especially for books of matches

The invention relates to a method for producing cardboard matches according to the preamble of claim 1 and to corresponding cardboard matches, especially for books of matches.

Conventional cardboard matches for books of matches are cut during production from a layer of cardboard into a piece of cardboard, with cuts leading from one side into the piece of cardboard, so that strips are formed. The end sections of said strips are then alternately pressed apart and then provided with paraffin and an igniting composition. The igniting composition forms igniting heads which project from all sides over the circumference of the end sections and therefore prevent any complete bending back of the pressed-apart end sections of the strips. This leads to an only seemingly two-layer arrangement of matches.

From DE 296 14 075 U1 a hard box for cigarettes with friction strips is known which are arranged within the box lid and can be flipped out of the same. The hard box and the friction strips are cut or punched out of the same sheet and thus of the same material. The individual match strips are laterally connected to one another by way of perforations. An igniting composition is applied to the ends of the individual match strips. In order to avoid impairing the layout of the hard box when the friction strips are flipped out, the match strips as well as the side of the hard box which is underneath the same can be dyed and printed with the same motif.

It is the object of the present invention to develop a simplified method for producing cardboard matches and to thus provide respectively improved cardboard matches, especially for visually appealing books of matches.

This object is achieved by a method for producing cardboard matches according to the features of claim 1 and by respective cardboard matches according to the features of claim 15.

The production method for cardboard matches allows the production of cardboard matches for books of matches in a rapid manner and with few production steps. In this process, complex processes are omitted in particular, such as the mutual pressing apart of the strips prior to the coating with igniting composition in order to enable the provision of a sufficient number of match strips per piece of cardboard.

A cardboard match according to claim 15 offers, in combination with a simple arrangement, a large number of individual match strips on a single piece of cardboard. Moreover, it is composed of only one single part whose end sections are specially treated. A book of matches according to claim 27 with such a cardboard match can be manufactured rapidly and easily and offers in addition a large number of match strips in two real layers which are disposed behind one another. Said layers are disposed flat above one another and offer, depending on the respective arrangement of the individual match strips, a closed surface which is arranged in a visually appealing manner.

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Preferable embodiments are the subject matter of the subclaims. The arrangement of all strips on both sides saves processing steps and thus time during the punching. Moreover, an integral piece of cardboard is provided which is easy to handle and can be processed in a rapid and easy manner. The ratio of 1:2 between the transversal and the longitudinal sides allows the folding of the piece of cardboard into a flat, square and thus appealing cardboard match. A ratio is preferred with slightly shorter longitudinal sides, because a book of matches with a cover sheet which also claims space in longitudinal direction can thus be produced in a square way.

The folding of a row of match strips behind the other leads to a true two-layer arrangement of the rows of matches with two smooth plane surfaces which are visually appealing and can be used as advertising surfaces. In the case of printed motifs which are arranged similarly behind one another the overall picture is not immediately destroyed when match strips are removed from the front row, so that the motif or advertising effect is maintained for a longer time.

If individual motifs are printed per match strip, an appealing picture is maintained until the last match strip is pulled out. The weakening zone allows a simple bending of a section of the cardboard part and in addition offers a defined bending line in order to thus simplify the alignment of pictures that come to lie behind one another. Various methods for coating the end sections with paraffin and igniting composition offer the applicability of various existing machines for processing or treating cardboard for the production of books of matches.

Particularly appealing and, as a result, effective in advertising are books of matches with match strips whose shape is adapted to the printed motifs. Motifs of objects are particularly suitable which are marketed by the advertising party. As a result of the fact that a plane surface area is available, the match strips can be shaped with a different width and can thus be adapted to the objects to be illustrated.

An embodiment for cardboard matches is explained below in closer detail by reference to the enclosed drawings, wherein:

Fig. 1A shows the front side of a cardboard match according to a first embodiment with printed match heads;

Fig. 1B shows the rear side of the cardboard match of fig. 1B, and

Fig. 2 shows in the upper half the front side and in the lower half the rear side of a cardboard match according to a second embodiment with projecting match heads and structured match strips

As is shown in figs. 1A and 1B, individual pieces of cardboard 1 are cut or punched out of a sheet of cardboard, which pieces preferably are provided with a longitudinal shape, with the longitudinal sides or longitudinal edges 2 of a piece of cardboard 1 particularly being nearly twice as long as its transversal sides or transversal edges 3. Cuts 4 lead from both sides of the transversal edges 3 into the piece of cardboard 1, so that strips 5 can be formed on either side following a single punching step. The cuts 4 project towards the center of the piece of cardboard 1, with their length preferably being slightly more than one-third of the length of the longitudinal edges 2.

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A weakening line 6 is integrated in the piece of cardboard 1, preferably approximately centrally between the transversal edges 3 and parallel to the same or to the longitudinal direction of the cuts 4. A weakening line 6 can be, for example, a line-shaped zone made of another material, a notch cut into the lower side, a pressed-in groove or, preferably, a perforation 6. A perforation 6 could be punched in especially during the punching of the piece of cardboard 1 from a sheet of cardboard.

The weakening line 6 facilitates the bending or folding of the section of the piece of cardboard 1, which is illustrated in the lower part of fig. 1, behind the upper section, which folding or bending is performed in a later step. Following the folding, the piece of cardboard 1 can then be glued into a book of matches in order to thus provide a real two-layer arrangement of superimposed strips.

The end sections 7 of the strips 5 are provided after the punching with paraffin and an igniting composition 9, with various processing sequences being possible for the treatment of the two sides of the piece of cardboard 1 with such end sections 7, which include such as explained below.

In order to provide the end sections 7 of the two sides with paraffin and an igniting composition 9 while they are still disposed in a plane, treatment on one side is considered, followed by the turning of the piece of cardboard 1 and the treatment of the other end sections 7 on the other side. This is considered in particular when dipping baths are used.

Alternatively, the end sections 7 can be sprayed or brushed over with respective applying devices with paraffin and/or igniting composition 9. The turning of the piece of cardboard 1 can be omitted in this case if the applying device is provided with respectively spaced auxiliary application means. A further example for a coating method comprises the folding of the lower section of the piece of cardboard 1 along the weakening line 6 behind its upper section about an angle of preferably more than 90°, but less than 180°. Thereafter the end sections 7 of both sides of the piece of cardboard 1 can be simultaneously coated or dipped into a coating bath.

Depending on the material of the igniting mass 9 and the method of application, the igniting composition 9 forms match heads which rest in a flat manner on the strips, as is illustrated in figs. 1A and 1B, or, as is shown in fig. 2, match heads can be formed which project on all sides beyond the circumference of the end sections 7. The igniting mass 9 can be enriched with dyes, so that the match heads on a piece of cardboard 1 can be adapted to the color design of a book of matches for example. In particular, adjacent match heads however can be provided with different igniting compositions 9.

During the punching of the piece of cardboard 1 it is possible to arrange the cuts 4 and/or cutouts 11 in such a way that the individual strips 5 are provided with different widths or even with different shapes, as is shown in fig. 2. It is thus possible, for example, to design books of matches for advertising purposes for a drugstore and perfume shop which comprise match strips for example in the shape of a lipstick 12, a perfume bottle 13 or a rouge brush 14. Notice must be taken in the dimensioning of the cutouts 11 that the end sections 7 with the match heads are not weakened to such an extent that they will break or tear off during ignition. Parameters to be

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considered are in particular the strength and type of material from which pieces of cardboard 1 are punched. Concerning the format of the piece of cardboard 1 per se or the individual match strips 5 there are no fixed defining values. The ratio of length to width can therefore be chosen differently for example if no square-shaped books of matches are to be produced.

A particular advantage is the possibility of enabling printing on a wide surface area with advertisements or motifs 15. Although the printing can also occur after the punching of the piece of cardboard 1, the printing preferably occurs prior to the punching. Since after the folding of the lower section of the piece of cardboard 1 the actual rear side of the folded and bent-up section faces forwardly, its front side is printed when the upper section is printed and its rear side when the lower side is printed, as is illustrated in figs. 1A and 1B.

In the case of flat match heads which do not project over laterally adjacent match strips 5 (figs. 1A, 1B) or in the case of protruding match heads on match strips 5 which taper on the end section (fig. 2), a flat surface is also maintained after the coating. This not only enables a printing with narrow motifs 15 (match strip by match strip), but also the printing of large-area motifs 15 which extend over several match strips.

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## Claims: (amended)

1. A method for producing cardboard matches, especially for books of matches, comprising the following production steps:
  - cutting or punching at least one piece of cardboard (1) from a paper- or cardboard-like material in such a way that for forming individual adjacent strips (5) cuts (4) are made in the piece of cardboard (1) from a first transversal side (3);
  - providing at least end sections (7) of the strips (4) with preferably paraffin and an igniting composition (9) to form match strips, with cuts (4) being made in addition in the piece of cardboard (1) from a second transversal side (3), which is substantially opposite of the first side (3), in order to form further strips (5), characterized in that the piece of cardboard (1) is printed before or after the punching or cutting with advertisements or at least a motif (15) and the section of the first piece of cardboard (1) in the zone of the first transversal side (3) is printed from behind and the section in the zone of the second transversal side (3) is printed from the front.
2. A method for producing cardboard matches as claimed in claim 1, characterized in that the formation of the second strips (5) is performed in the same production step as the formation of the first strips (5)
3. A method for producing cardboard matches as claimed in claim 1 or 2, characterized in that the piece of cardboard (1) is provided with an oblong shape, with the longitudinal extension of the piece of cardboard (1) being produced in particular nearly twice as long as its transversal extension.
4. A method for producing cardboard matches as claimed in claim 3, characterized in that the length of the cuts (4) towards the center of the piece of cardboard (1) is provided by slightly more than one third of the length of the longitudinal sides (2).
5. A method for producing cardboard matches as claimed in one of the preceding claims, characterized in that a first section extending from the first transversal side (3) of the piece of cardboard (1) is bent or folded, so that the first transversal side (3) comes to lie preferably behind the second transversal side (3) or adjacent to the same.
6. A method for producing cardboard matches as claimed in claim 5, characterized in that the folded piece of cardboard (1) is fastened in a book of matches by providing a two-layer arrangement of superimposed strips (5).
7. A method for producing cardboard matches as claimed in one of the preceding claims, characterized in that a specially line-shaped weakening zone (6) is integrated in the piece of cardboard (1) approximately centrally between the transversal sides (3) and parallel to the same
8. A method for producing cardboard matches as claimed in claim 7, characterized in that the weakening zone is a perforation (6) which is preferably simultaneously punched into the same during the punching of the piece of cardboard (1).

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9. A method for producing cardboard matches as claimed in one of the preceding claims, characterized in that the zones of the end sections (7) of the two transversal sides (3) arranged in one plane are provided with paraffin and/or igniting mass.
10. A method for producing cardboard matches as claimed in claim 9, characterized in that the two zones of the end sections (7) are treated successively and that the piece of cardboard (1) is rotated accordingly in between.
11. A method for producing cardboard matches as claimed in one of the claims 1 to 8, characterized in that the piece of cardboard (1) is folded about an angle of preferably more than 90° and less than 180° and the zones of the end sections (7) of the two transversal sides are provided thereafter simultaneously with paraffin and/or igniting mass (9).
12. A method for producing cardboard matches as claimed in one of the preceding claims, characterized in that cuts (4) and/or cutouts (11) between the individual strips (5) are arranged such that the individual strips (5) are differently wide and/or differently shaped.
13. Cardboard matches, in particular for a book of matches, produced in particular according to a method as claimed in one of the preceding claims,  
- of a piece of cardboard (1);  
- with a first and a second, substantially mutually opposite transversal side (3).  
- with cuts (4) which are formed in the first transversal side (3) by forming first strips (5) with end sections (7).  
- with igniting composition (9) and with preferably paraffin on the end sections (7) forming match strips, as well as  
- further cuts (4) which are formed in the second transversal side (3) by forming second strips (5) with the end sections (7),  
characterized in that the second strips (5) and the first strips (5) are arranged integrally with the piece of cardboard (1), with the piece of cardboard (1) being printed with advertising or at least one motif (15) over a large area and/or strip (5) by strip (5) and with the section of the piece of cardboard (1) in the zone of the first transversal side (3) being printed from the back and the section in the zone of the second transversal side (3) being printed from the front.
14. Cardboard matches as claimed in claim 13, characterized in that the piece of cardboard (1) is provided with an oblong shape, with its longitudinal sides (2) being twice as long as its transversal sides (3).
15. Cardboard matches as claimed in claim 14, characterized in that the length of the cuts (4) leads towards the center of the piece of cardboard (1) by slightly more than one-third of the length of the longitudinal sides (2).
16. Cardboard matches as claimed in one of the claims 13 to 15, characterized in that a first section starting out from the first transversal side (3) of the piece of cardboard (1) is bent or folded in such a way that the first transversal side (3) preferably comes to lie behind the second transversal side (3) or adjacent to the same.

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17. Cardboard matches as claimed in claim 16, characterized in that the folded piece of cardboard (1) is fastened in a book of matches by providing a two-layer arrangement of superimposed strips (5).
18. Cardboard matches as claimed in one of the claims 13 to 17, characterized in that an especially line-shaped weakening zone, preferably a perforation (6), is arranged in the piece of cardboard (1) approximately centrally between the transversal sides (3) and parallel to the same.
19. Cardboard matches as claimed in one of the claims 13 to 18, characterized in that the cuts (4) and/or the cutouts (11) are arranged between individual strips (5) in such a way that the individual strips (5) are shaped with different widths and/or different shapes.
20. Cardboard matches as claimed in one of the claims 13 to 19, characterized in that the shape of the strips (5) and a printed motif (15) are matched to one another.
21. Cardboard matches as claimed in one of the claims 13 to 20, characterized in that the igniting mass (9) is colored.
22. A book of matches with at least one cardboard match as claimed in one of the claims 13 to 21.

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(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES  
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12 49, D-87712 Mindelheim (DE).

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(71) Anmelder und  
(72) Erfinder: SCHNEIDER, Maximilian [DE/DE]; Hes-  
sstrasse 74-76, D-80798 München (DE).

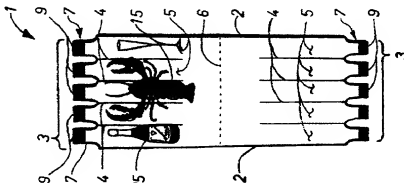
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(84) Bestimmungsstaaten (regional): ARIPO-Patent (GH,  
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GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI-Patent (BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN,  
TD, TG).

[Fortsetzung auf der nächsten Seite]

(54) Title: METHOD FOR PRODUCING CARDBOARD MATCHES AND CORRESPONDING CARDBOARD MATCHES, ES-  
SPECIALY FOR BOOKS OF MATCHES

(54) Bezeichnung: VERFAHREN ZUR HERSTELLUNG VON KARTONZÜNDERN SOWIE KARTONZÜNDER, INSBESON-  
DERE FÜR ZÜNDERHEFTCHEN



(57) Abstract: The invention relates to a simplified method for producing cardboard matches, especially for books of matches, comprising the following steps: cutting or punching out at least one piece of cardboard (1) from an especially paper or cardboard-type material in such a way that individual, adjacent strips (5) extending from a first transversal side (3) are formed from cuts (4) in said piece of cardboard (1); providing at least end sections (7) of the strips (4) with preferably, paraffin and with an igniting composition (9) to produce match strips. According to the invention, cuts (4) extending from a second transversal side (3) essentially opposite to the first (3) are also made in the piece of cardboard (1) in order to form additional strips (5).

(57) Zusammenfassung: Zur vereinfachten Herstellung von Kartonzündern, insbesondere für Zünderheftchen, mit: Ausschneiden oder Ausstanzen zumindest eines Kartonstücks (1) aus einem insbesondere papier- oder kartonartigen Material derart, daß zum Ausbilden von einzelnen, benachbarten Streifen (5) von einer ersten Querseite (3) aus Einschnitte (4) in das Kartonstück (1) ausgebildet werden; Versetzen von zumindest Endabschnitten (7) der Streifen (4) mit vorzugsweise Paraffin und mit einer Zündmasse (9) zum Ausbilden von Zündstreifen, wird vorgeschlagen, daß zusätzlich von einer zweiten Querseite (3) aus, die der ersten Querseite (3) im wesentlichen gegenüberliegt, zum Ausbilden weiterer Streifen (5) Einschnitte (4) im Kartonstück (1) ausgebildet werden.

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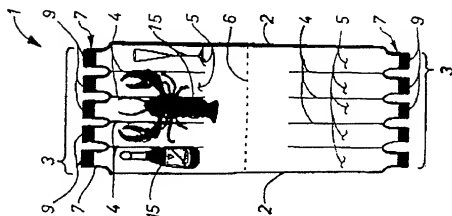


Fig. 1A

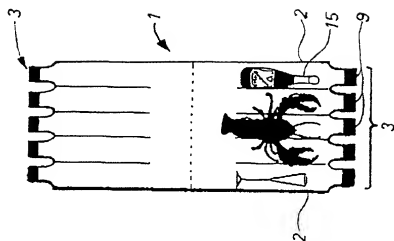


Fig. 1B

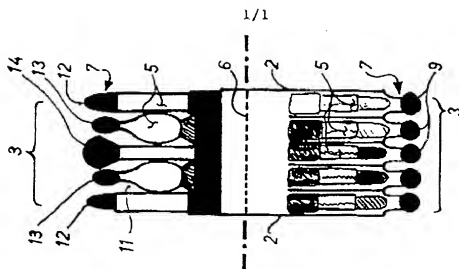


Fig. 2

# DECLARATION AND POWER OF ATTORNEY FOR ORIGINAL U.S. PATENT APPLICATION

Attorney's Docket No. \_\_\_\_\_

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:  
**METHOD FOR PRODUCING CARDBOARD MATCHES AND CORRESPONDING CARDBOARD**  
**MATCHES, ESPECIALLY FOR BOOKS OF MATCHES** \_\_\_\_\_ the specification of which,

(check one)

1. ☐ is attached hereto.
2. ☐ was filed on \_\_\_\_\_ as  
U.S. Application Serial No. \_\_\_\_\_  
and was amended on \_\_\_\_\_
3. ☒ was filed on June 4, 1999 as  
International PCT Application Serial No. PCT/EP99/03870  
and was amended on July 18, 2000 under Art. 34

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, CFR § 1.56.

I hereby claim foreign priority benefits under Title 35, United States code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed:

**Prior Foreign Application(s)**

198 25 352 4  
(Appl. No.)

Germany  
(Country)

June 5, 1998  
(Filing Date)

**Priority Benefits Claimed?**

☒ Yes ☐ No

\_\_\_\_\_  
(Appl. No.)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Filing Date)

☐ Yes ☐ No

\_\_\_\_\_  
(Appl. No.)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Filing Date)

☐ Yes ☐ No

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

00701091-071601

Prior U.S. Application(s)

(Application Serial No.)

(Filing Date)

(Status - patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status - patented, pending, abandoned)

And I hereby appoint the law firm of Hickman, Coleman & Hughes, LLP including Paul L. Hickman (Reg. No. 28,516); L. Keith Stephens (Reg. No. 32,632); Brian R. Coleman (Reg. No. 39,145); Michael J. Hughes (Reg. No. 29,077); Robert D. Hayden (Reg. No. 42,645); Larry B. Guernsey (Reg. No. 40,008); Raymond E. Roberts (Reg. No. 38,597); Michael E. Melton (Reg. No. 32,276); Larry B. Guernsey (Reg. No. 40,008); Bill Kennedy (Reg. No. 33,407); Stefanie M. Howell (Reg. No. 45,929) as my principal attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Send Correspondence To:

**HICKMAN COLEMAN & HUGHES, LLP**  
**P.O. BOX 52037**  
**Palo Alto, California 94306**

Direct Telephone Calls To:

Attorney Name at telephone number (650) 470-7430

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Typewritten Full Name of

Sole or First Inventor:

Maximilian Schneider

Citizenship: German

Inventor's signature:

[Signature]

Date of Signature: 22.12.2000

Residence: (City)

80798 München

(State/Country) Germany DEX

Post Office Address:

Heßstraße 74-76, 80798 München, Germany

Typewritten Full Name of

Second Inventor:

Citizenship:

Inventor's signature:

Date of Signature:

Residence: (City)

(State/Country)

Post Office Address:

Typewritten Full Name of

Third Inventor:

Citizenship:

Inventor's signature:

Date of Signature:

Residence: (City)

(State/Country)

Post Office Address: